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ABSTRACT

Information from many different sources related to the use of computers in instruction, particularly computer-assisted instruction (CAI), is provided in this bibliography: journal articles, books, articles from edited books, and technical reports or memos. Each of the 835 entries contains title, year and place of publication, often the number of pages, and the author's name. Additional information considered pertinent for the location of a given source is also included where appropriate, and those articles or papers which were referenced in abstracted form are identified. Included in each entry are the appropriate keywords which serve to index its contents. An index of entries by descriptors and an author index are also included. (SH)

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COMPUTER-ASSISTED INSTRUCTION

A
SELECTED
BIBLIOGRAPHY

O. Dennis Barnes
Deborah B. Schrieber

March 1972

ASSOCIATION FOR EDUCATIONAL COMMUNICATIONS & TECHNOLOGY
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INTRODUCTION

AECT would like to thank O. Dennis Barnes, National Technical Institute for the Deaf, Rochester Institute of Technology, and the people who worked with him on this comprehensive bibliography for the opportunity to publish it. We feel that with the abundance of literature on the subject of computer-assisted instruction, there needs to be an easier way of looking at it all. This bibliography will help -- breaking out many interest areas in the CAI field and making the task of locating pertinent information simpler.

This bibliography is by no means complete, but the job it does is one that is needed. It provides a starting point on a study of CAI and can provide guidelines for future referencing.

AECT again thanks all the people who made this job possible.

Howard Hitchens Jr.
Executive Director

PREFACE

A bibliography is not an unusual commodity in the academic world. There are those which are in constant use and those which only gather dust. There are those which have been carefully produced and those which have been "thrown" together.

The authors of this bibliography do not know how often it will be used. We can only hope that those interested in locating information sources related to the use of the computer in instruction, CAI, will find it of frequent help and value.

We do know how this bibliography was produced. Much systematic effort was required. First, each document was obtained. Then, each was read in its entirety, and, thus, is keyworded by content and not necessarily by title. As a result, we have used 663 keywords to categorize and organize the 835 citations in this bibliography. Although this is an extensive bibliography, it is by no means exhaustive. Other bibliographic sources include ERIC and The Clearinghouse for Federal Scientific and Technical documents, which are not knowingly referenced here.

An effort such as this owes its success to many. We wish to again thank the many individuals who contributed documents to our effort. Their cooperation is greatly appreciated. Our thanks to Marie Vincent for her effort in developing the program for the keyword listing. Our thanks also to William Sullivan and Mary Hite for their cooperation in getting the bibliography typed. Finally, our special thanks to Dee Mergler, who found herself responsible for the agonizing and time-consuming task of typing this montrous document.

O. Dennis Barnes
Deborah B. Schrieber
March 1972

Bibliographic Format Explanation

There are many different types of information sources cited in this bibliography. This was done so that the user would become acquainted with the wide variety of literature sources available on computer-assisted instruction.

Every effort has been made to provide the user of this bibliography with sufficient information within each citation to allow for reasonably easy location of each source. However, since there are many different bibliographic formats in use, the formats used in this bibliography are explained below in order to further clarify the type of source referred to in a particular citation.

Journal article

Author(s). Article title. Journal title, year of publication, volume number (issue number), pages of article.

When a volume number or issue number is not known, the month of publication is given in parentheses following the year.

Book

Author(s). Title. Place of publication: Publisher, year of publication.

Edited book

Author(s). (Ed[s].) Title. Place of publication: Publisher, year of publication.

Article in edited book

Author(s) of article. Article title. In Author(s) (Ed[s].), Title. Place of publication: Publisher, year of publication. Pages of article.

Technical report or memo

Author(s). Title. Document classification and number, Issuing agency, place of issue, year of issue.

A specific article in a technical report or memo is cited similarly to the format used for an article in an edited book.

Paper

Author(s). Paper title. Organizational meeting at which it was presented, place of presentation, year.

If the article or paper cited was in an abstracted form, the usual citation format will be followed by (Abstract).

Other forms of citation used will generally follow one of the above formats. Additional information considered pertinent for the location of a given source will be found inserted into an appropriate place in the standard citation format for that type of source.

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IBM/360; APL

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Socrates; medicine; dialogue system; teaching machine

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teacher; overview; cost; software

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response; cueing; programmed instruction

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mechanics; college; APL; physics

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automation; future

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future; dialogue system; learning

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author; language; CATALYST

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drill-and-practice; German; reinforcement; prompting; response; math; cost; foreign languages; drill; strategy--instructional

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paired learning; achievement; curriculum development; Boolean algebra; confidence; ability; attitude; high school

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programmed instruction; reinforcement; aptitude; autonomy need; achievement

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quantum mechanics; sequence; curriculum

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New York City; overview

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math; graphing

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higher education; educational technology; engineering; television; limitations

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higher education; applications; limitations; administration

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engineering education; time-sharing; calculation; chemical engineering; terminal

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applications; college; hardware; system design; computer-managed instruction; cost; educational technology; limitations; obstacles

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technology; education; utilization

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system design; hardware; PLATO; plasma display panel; terminal; cost

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computer-managed instruction; monitor; IMS; management system--instructional; diagnostic tool; IPI

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language; BASIC; programming; high school; teletype; curriculum

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applications; Stanford University; reading; elementary grades; overview; sex; music; physics; college; Florida State University; junior high; science; advantages; individualization; teacher; cost; counseling

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language; programming; BASIC

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math; drill-and-practice; strand; elementary grades; logic; algebra; teacher; terminal; teletype; curriculum; decision rules

0751 Grayson, L. P. Computer-assisted Instruction and Its Implications for University Education. In The Application of Technology to Education. Proceedings of a Symposium, American Society for Engineering Education, 2100 Pennsylvania Ave., N.W., Washington, D. C., 1969. Pp. 7-12.

time-sharing; definition; applications; college; overview; obstacles; hardware; cost; graphics; terminal; software; language; effectiveness; future; implementation; tutorial

0752 Vinsonhaler, J. F., & Bass, R. Where It's At: On the Evaluation of CAI Drill and Practice. Information Systems Laboratory, Michigan State University, East Lansing, 1971.

drill-and-practice; language arts; math; elementary grades; achievement; effectiveness

0753 Edwards, Judith B. Computer Instruction: Planning and Practice. Northwest Regional Educational Laboratory, Portland, Oregon, 1969.

NETWORK; Marion County, Oregon; teacher; training; programming; language; assembler; compiler; math; problem solving; business education; terminal; time-sharing; BASIC; hardware; PDP-8/S; ECP-18; mobile installation; IBM/1130; input; cost; bibliography

0754 *Computer Applications in Dental Education: A Conference Report*. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971.

dental education; applications; administrative; overview; project

0755 Lyman, Elisabeth R. *A Summary of PLATO Curriculum and Research Materials*. CERL Report X-23, Computer-based Education Research Laboratory, University of Illinois, Urbana, 1971.

PLATO; language; TUTOR; project; curriculum; astronomy; biology; chemistry; college; games; demography; economics; education; civil engineering; electrical engineering; mechanics; French; Latin; library science; math; drill-and-practice; physics; political science; Russian; Spanish; veterinary medicine; bibliography

0756 Bitzer, D., & Skaperdas, D. *The Economics of a Large-scale Computer-based Education System PLATO IV*. Computer-based Education Research Laboratory, University of Illinois, Urbana, 1968, (mimeo).

PLATO; terminal; multi-media; computation; student records; system design; cost; plasma display panel

0757 Stolurow, L. M. Learning in the Medical/Dental School Environment. In *Computer Applications in Dental Education: A Conference Report*. Washington, D. C.: Department of Health, Education and Welfare, 1971. Pp. 12-49.

dental education; medicine; educational technology; individualization; interaction; instruction; levels of CAI; pathology; dialogue system; Socrates; strategy--instructional; visual; TAPS; anatomy; ophthalmology; information retrieval; hematology; simulation

0758 Grubb, R. E. CAI: Technical Aspects and Resources. In *Computer Applications in Dental Education: A Conference Report*. Washington, D. C.: Department of Health, Education, and Welfare, 1971. Pp. 50-64.

instructional technology; levels of CAI; IBM; interaction; learner-controlled instruction; statistics; achievement; arithmetic; practice; teacher; learner

0759 Starkweather, J. A. Educational Networks and Interfacing with the University Computing Center. In *Computer Applications in Dental Education: A Conference Report*. Washington, D. C.: Department of Health, Education, and Welfare, 1971. Pp. 65-98.

medicine; installation; centralization; hardware; applications; software; curriculum development; evaluation; interaction; programming; curriculum; language

0760 James, H. T. Reservations on the Application of Technology to Education. In *The Application of Technology to Education*. Proceedings of a Symposium, American Society for Engineering Education, 2100 Pennsylvania Ave., N.W., Washington, D. C., 1969. Pp. 31-33.

educational technology; education; limitations

0761 Rahmlow, H. F., & Kerr, E. G. The Modular Development of Computer-assisted Instruction Programs. *NSPI Journal*, 1969, 8(2), 20-23.

math; curriculum development; strategy--instructional; testing

0762 Brigham, C. R. *Computer Assisted Instruction in the Health Sciences: Literature Search*. Health Sciences Interest Group, Association for the Development of Instructional Systems, 1971.

bibliography; health sciences; medicine

0763 Tira, D. E. Ohio State Regional Medical Program Computer-assisted Instruction Study. In Computer Applications in Dental Education: A Conference Report. Washington, D. C.: U. S. Department of Health, Education and Welfare, 1971. Pp. 103-09.

medicine; Ohio State University; anatomy; dentistry; inservice education; tutorial

0764 Computer-assisted Instruction: Report of Discussion Group. In Computer Applications in Dental Education: A Conference Report. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971. Pp. 144-55.

overview; project; Cornell University; anatomy; obstacles; Stony Brook, N. Y.; University of Calif., San Francisco; University of Iowa; abstracts; cost; dentistry; medicine

0765 Project Abstract: Cornell University Medical College. In Computer Applications in Dental Education: A Conference Report. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971. P. 148 (Abstract).

Cornell University; project; tutorial; anatomy; medicine

0766 Project Abstract: Ohio State University. In Computer Applications in Dental Education: A Conference Report. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971. P. 149 (Abstract).

Ohio State University; project; inservice education; dentistry; attitude

0767 Project Abstract: University of California, San Francisco Medical Center. In Computer Applications in Dental Education: A Conference Report. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971. P. 152 (Abstract).

University of California, San Francisco; medicine; dentistry; simulation; interview; project

0768 Project Abstract: University of Pittsburgh. In Computer Applications in Dental Education: A Conference Report. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971. P. 154 (Abstract).

University of Pittsburgh; simulation; dentistry

0769 Project Abstract: Dental Health Center. In Computer Applications in Dental Education: AConference Report.Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1971. P. 155 (Abstract).

dentistry; training; simulation

0770 Webber, C. E., & Montague, W. E. PAVLEW: A Program for Verbal Learning Experiments on the PLATO System. Report I-135, Coordinated Science Laboratory, University of Illinois, Urbana, 1966.

learning; verbal learning; PLATO; program; PAVLEW; paired associate learning

0771 Braunfeld, P. G., & Fosdick, L. D. The Use of an Automatic Computer System in Teaching. Report R-160, Coordinated Science Laboratory, University of Illinois, Urbana, 1962.

PLATO; hardware; terminal; strategy--instructional; programming--course; college; achievement; curriculum

0772 CAI Reporter, 1971, 1(11), 1-8.

West Point; time-sharing; Digital Equipment Corp.

0773 The Use of Computers in Instruction. AEDS Monitor, 1971, 9(11), 4.

teacher; utilization

0774 Bitzer, D., & Skaperdas, D. The Design of an Economically Viable Large-scale Computer-based Education System. CERL Report X-5, Computer-based Education Research Laboratory, University of Illinois, Urbana, 1969.

PLATO; terminal; nursing; geometry; response; system design; cost; curriculum development; plasma display panel

0775 Easley, J. A., Jr., Gelder, H. M., & Golden, W. M. A PLATO Program for Instruction and Data Collection in Mathematical Problem Solving. Report R-185, Coordinated Science Laboratory, University of Illinois, Urbana, 1964.

math; theorem proofs; junior high; teacher education; PLATO; problem solving; algebra; geometry

0776 Task Group Suggests New CAI System Approaches. CAI Reporter, 1971, 1(12), 1-3.

reading; math; elementary grades; curriculum development; television--cable; cost

0777 Easley, J. A., Jr. A Project to Develop and Evaluate a Computerized System for Instructional Response Analysis. Final Report, Contract No. OE-6-10-184. Office of Education, U. S. Department of Health, Education, and Welfare. Computer-based Education Research Laboratory, University of Illinois, Urbana, 1968.

PLATO; response; personnel; evaluation; SIRA; data; debugging; student records; research tool; instruction; author; response-data processing; storage; software; program; learner; attitude; socioeconomic level; behavior; disadvantaged; high school; motivation; age; sex; reinforcement; curriculum development

0778 Kendzior, Elizabeth. Curriculum Development Based on Student Responses. In J. A. Easley, Jr., *A Project to Develop and Evaluate a Computerized System for Instructional Response Analysis*. Final Report. Computer-based Education Research Laboratory, University of Illinois, Urbana, 1968. Pp. 30-41.

curriculum development; teacher; learner; genetics; evolution; high school; evaluation; debugging; implementation; attitude

0779 Dennis, J. R. Revision of Course Content Based on Student Response Analysis. In J. A. Easley, Jr., *A Project to Develop and Evaluate a Computerized System for Instructional Response Analysis*. Final Report. Computer-based Education Research Laboratory, University of Illinois, Urbana, 1968. Pp. 42-44.

geometry; junior high; curriculum development; debugging; revision; response

0780 Cassel, R. N. The UWM Computerized Psychology and Guidance Programs. *Newsletter* of the Association for Development of Instructional Systems, July, 1971, 4-10.

University of Wisconsin, Milwaukee; counseling; drug abuse education; psychology; vocational guidance; guidance; school psychology; testing

0781 Hicks, B. L. *PLATO Program: VERBOSE*. Report I-129, Coordinated Science Laboratory, University of Illinois, Urbana, 1965.

program; VERBOSE; word association

0782 Johnson, R. L. *The Use of Programmed Learning and Computer-based Instruction Techniques to Teach Electrical Engineering Network Analysis*. Report R-297, Coordinated Science Laboratory, University of Illinois, Urbana, 1966.

electrical engineering; network analysis; PLATO; tutorial; inquiry; objectives--course; evaluation; achievement; college; attitude

0783 Lyman, Elisabeth R. A Descriptive List of PLATO Programs 1960-1968. CERL Report X-2, Computer-based Education Research Laboratory, University of Illinois, Urbana, 1968.

PLATO; program; strategy--instructional; tutorial; inquiry; college; curriculum; laboratory; simulation; games; demonstration; programming--course; electrical engineering; math; high school; Latin; French; library science; English; nursing; genetics; chemistry; political science

0784 Alpert, D., & Bitzer, D. L. Advances in Computer-based Education. CERL Report X-10, Computer-based Education Research Laboratory, University of Illinois, Urbana, 1969.

strategy--instructional; tutorial; inquiry; cost; drill-and-practice; applications; evaluation; overview; software; PLATO; future; hardware; terminal; utilization

0785 Barnes, O. D. Uses of Computer Assisted Instruction in the Teaching of Mathematics. Paper presented at the 46th Convention of American Instructors of the Deaf, 1971.

math; problem solving; plotting; tutorial; drill-and-practice; diagnostic tool; deaf

0786 Barnes, O. D., & Finkelstein, Arlene. The Role of Computer Assisted Instruction at the National Technical Institute for the Deaf. Paper presented at Symposium on Research and Utilization of Educational Media for Teaching the Deaf, Lincoln, Nebraska, 1971.

deaf; math; diagnostic tool; chemistry; strategy--instructional; science

0787 Bitzer, D. L. *Some Pedagogical and Engineering Design Aspects of Computer-based Education.* Paper presented at the Naval Training Station, China Lake, Calif., 1968.

PLATO; terminal; computation; geometry; junior high; laboratory; simulation; cost; electrical engineering; nursing; system design; plasma display panel

0788 Bachman, R. G. *Application of a Computer Controlled Automatic Teaching System to Network Synthesis.* Report I-115, Coordinated Science Laboratory, University of Illinois, Urbana, 1962.

response; PLATO; network synthesis; electrical engineering; debugging; curriculum

0789 Bitzer, D. L., Lyman, Elisabeth R., & Easley, J. A., Jr. *The Uses of PLATO: A Computer Controlled Teaching System.* Report R-268, Coordinated Science Laboratory, University of Illinois, Urbana, 1965.

PLATO; strategy--instructional; tutorial; inquiry; terminal; electronic blackboard; research; overview

0790 Bitzer, D. L., Lyman, Elisabeth R., & Easley, J. A., Jr. The Uses of PLATO: A Computer Controlled Teaching System. *Audiovisual Instruction*, 1966, 11(1), 16-21.

PLATO; strategy--instructional; tutorial; inquiry; terminal; electronic blackboard; research; overview

0791 Bitzer, D. L., Blomme, R. W., Sherwood, B. A., & Tenczar, P. *The PLATO System and Science Education.* CERL Report X-17, Computer-based Education Research Laboratory, University of Illinois, Urbana, 1970.

PLATO; curriculum; life sciences; genetics; nursing; chemistry; physics; electrical engineering; civil engineering; college; language; TUTOR; hardware; author; software

0792 Bitzer, D. L., & Easley, J. A., Jr. *PLATO: A Computer-controlled Teaching System*. Paper presented at Department of Audiovisual Instruction convention, Rochester, N. Y., 1964.

PLATO; strategy--instructional; tutorial; inquiry; hardware; terminal; electronic book; electronic blackboard

0793 Bitzer, D. L., & Easley, J. A., Jr. PLATO: A Computer-controlled Teaching System. In Margo A. Sass & W. D. Wilkinson (Eds.), *Computer Augmentation of Human Reasoning*. Washington, D. C.: Spartan Books, 1965. Pp. 89-103.

PLATO; strategy--instructional; tutorial; inquiry; electronic book; electronic blackboard; hardware; terminal

0794 Lyman, Elisabeth R. *A Descriptive List of PLATO Programs 1960-1971*. CERL Report X-2 (Revised June, 1971), Computer-based Education Research Laboratory, University of Illinois, Urbana, 1971.

PLATO; curriculum; astronomy; biology; chemistry; communications; demography; economics; research; civil engineering; electrical engineering; French; nursing; Latin; library science; math; physics; political science; Russian; Spanish; veterinary medicine; bibliography

0795 Jerman, M. Computer-assisted Instruction. In N. G. Haring & Alice H. Hayden (Eds.), *Workshop in Instructional Improvement: Behavior Modification*. Fort Steilacoom, Washington: Child Study and Treatment Center, 1968. Pp. 99-115.

elementary grades; logic; algebra; arithmetic; levels of CAI; drill-and-practice; evaluation; tutorial; dialogue system; individualization; teacher; concept block; implementation; difficulty level; Stanford University

0796 Smallwood, R. D., Weinstein, I. J., & Eckles, J. E. Quantitative Methods in Computer-directed Teaching Systems. Final Report on Office of Naval Research Contract Nonr-225(84). Institute in Engineering-Economic Systems, Stanford University, Stanford, Calif., 1967.

system analysis; decision rules; tutorial; model; learning model; strategy--instructional; optimization; system design; system engineering; education; individualization

0797 Sargent, R. G., Fishell, K. N., Belland, J. C., et al. Large Scale Information Processing System Vol. III. Model Building and Educational Use of Computers. Technical Report RADC-TR-68-401, Vol. III, Rome Air Development Center, Air Force Systems Command, Griffiss Air Force Base, New York, 1969.

programmed instruction; teacher; behavior; BASIC; response

0798 Thomas, M. E., & McKinney, G. Computer Simulations in an Introductory Course in Industrial Engineering. Journal of Engineering Education, 1969, 59(5), 401-04.

industrial engineering; simulation; time-sharing

0799 Forsyth, J. S., & Ratkowsky, D. A. Using a Computer for Undergraduate Laboratory Calculations. Journal of Engineering Education, 1969, 59(5), 420-21.

chemical engineering; problem solving

0800 Burkhart, L. E., Larson, M. A., & Stevens, J. D. Analog Computers Help to Develop Methods of Applied Mathematics. Journal of Engineering Education, 1969, 59(5), 387-90.

chemical engineering; analog computer; problem solving; simulation

0801 Robertson, T. F. The New Impact: Technology in Education. In N. G. Haring & Alice H. Hayden (Eds.), Workshop in Instructional Improvement: Behavior Modification. Fort Steilacoom, Washington: Child Study and Treatment Center, 1968. Pp. 358-67.

individualization; educational technology; applications; computation; teacher; drill-and-practice; tutorial; dialogue system; games; simulation; project; overview; cost; hardware

0802 Block, Karen K. Strategies in Computer-assisted Instruction: A Selective Overview. Monograph 1971/1, Learning Research and Development Center, University of Pittsburgh, Pennsylvania, 1970.

applications; management system; definition; hardware; software; implementation; interface; interaction; overview; strategy--instructional; drill-and-practice; tutorial; Stanford University; simulation; curriculum development; terminal; optimization; future; obstacles

0803 Cooley, W. W. Computer Assistance for Individualized Education. Reprint No. 57, Learning Research and Development Center, University of Pittsburgh, Pennsylvania, 1970.

Learning Research and Development Center; individualization; Individually Prescribed Instruction; IPI; testing; management system; teacher

0804 Cooley, W. W. Computer Assistance for Individualized Education. Journal of Educational Data Processing, 1970, 7, 18-28.

Learning Research and Development Center; individualization; Individually Prescribed Instruction; IPI; testing; management system; teacher

0805 Cooley, W. W., & Glaser, R. *The Computer and Individualized Instruction*. Reprint No. 53, Learning Research and Development Center, University of Pittsburgh, Pennsylvania, 1969.

individualization; Individually Prescribed Instruction; computer-managed instruction; IPI; decision rules; implementation

0806 Block, Karen K., Tucker, Shirley, & Peskowitz, Nancy B. *Drill-and-Practice in CAI Spelling: Project Interim Report #1. Word Ratings and Instructional Treatment*. Learning Research and Development Center, University of Pittsburgh, Pennsylvania, 1971.

drill-and-practice; tutorial; spelling; confidence

0807 Lindvall, C. M., & Cox, R. C. *The Role of Evaluation in Programs for Individualized Instruction*. Reprint No. 40, Learning Research and Development Center, University of Pittsburgh, Pennsylvania, 1969.

individualization; testing; objectives--instructional; evaluation

0808 Glaser, R. *Adapting the Elementary School Curriculum to Individual Performance*. Reprint No. 26, Learning Research and Development Center, University of Pittsburgh, Pennsylvania, 1967.

individualization; objectives--educational; testing; Individually Prescribed Instruction; IPI; Oakleaf School

0809 Glaser, R. Adapting the Elementary School Curriculum to Individual Performance. In Proceedings of the 1967 *Invitational Conference on Testing Problems*. Princeton, N. J.: Educational Testing Service, 1968. Pp. 3-36.

individualization; objectives--educational; testing; Individually Prescribed Instruction; IPI; Oakleaf School

0810 Lindvall, C. M., & Cox, R. C. The Role of Evaluation in Programs for Individualized Instruction. In Sixty-eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: National Society for the Study of Education, 1969. Pp. 156-88.

individualization; testing; objectives--instructional; evaluation

0811 Fishell, K. N., Belland, J. C., & Rothenberg, S. On-line Instructional Applications. In R. G. Sargent, K. N. Fishell, J. C. Belland, et al., Large Scale Information Processing System Vol. III. Model Building and Educational Use of Computers. Technical Report RADC-TR-68-401, Vol. III, Rome Air Development Center, Air Force Systems Command, Griffis Air Force Base, New York, 1969. Pp. 37-94.

teacher; behavior; programmed instruction; BASIC

0812 Cunningham, S. L., & Fuller, R.G. Computer Assisted Tutoring in Relativity--An Experiment. Department of Physics, University of Nebraska, Lincoln, 1971.

testing; personnel; achievement; relativity; physics; attitude

0813 Computers for Education. Working Paper No. 1, Report of a Working Party under the Chairmanship of Professor J. Black. London: National Council for Educational Technology, 1969.

applications; system; interaction; hardware; software; language; elementary grades; higher education; vocational education; cost; research & development

0814 Bork, A. M., Luehrmann, A., & Robson, J. W. Introductory Computer-based Mechanics: A One Week Sample Course, R. Blum (Ed.). College Park, Maryland: Commission on College Physics, 1968.

physics; mechanics; calculation

0815 Le Corre, Y., Jacoud, R., et al. Computer Assisted Instruction. Technical Report CERI/CT/70.60, Centre for Educational Research and Innovation, Organization for Economic Co-operation and Development, Paris, 1971.

hardware; obstacles; personnel; physics; electricity; language; author; software; graduate education; curriculum development; computation; biology; college; attitude; cost; teacher; learner; English; grammar; linguistics; calculus; strategy--instructional; Paris University

0816 Suppes, P., & Ihrke, Constance. Accelerated Program in Elementary-school Mathematics--The Fourth Year. Psychology in the Schools, 1970, 7(2), 111-26.

math; elementary grades; drill-and-practice

0817 Zinn, K. Requirements for Programming Languages in Computer-based Instructional Systems. Technical Report CERI/CT/70.62, Centre forEducational Research and Innovation, Organization for Economic Co-operation and Development, Paris, 1971.

language; programming; interaction; user; curriculum development; applications; hardware; cost; glossary

0818 Uttal, W. R., Rogers, Mirriam, Hieronymous, R., & Pasich, T. Generative Computer-assisted Instruction in Analytic Geometry. Newburyport, Mass.: ENTELEK, Inc., 1970.

levels of CAI; problem generation; tutorial; analytic geometry; response; software; programs; diagnostic tool; terminal; television display

0819 Simmons, R. F., Schwarcz, R. M., & Burger, J. F. Computer Assisted Instruction Using Natural Language. TM-4246, System Development Corp., Santa Monica, Calif., 1968.

natural language; conceptual modeling

0820 Schwarcz, R. M., Burger, J. F., & Simmons, R. F. *A Deductive Question Answerer for Natural Language Inference*. SP-3272, System Development Corp., Santa Monica, Calif., 1968.

natural language; question answerer

0821 Taylor, E. F. (Ed.) *ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System*. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

ELIZA; tutorial; typewriter; program; physics; natural language; slides

0822 Taylor, E. F. Automated Tutoring and Its Discontents. In E. F. Taylor (Ed.), *ELIZA: A Skimable Report on the ELIZA Conversational Tutoring System*. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

vectors; relativity; ELIZA; tutorial; physics; attitude; limitations

0823 Weizenbaum, J. Contextual Understanding by Computers. In E. F. Taylor (Ed.), *ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System*. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

ELIZA; understanding; natural language; interaction

0824 Taylor, E. F. The ELIZA Program: Conversational Tutorial. *IEEE International Convention Record*, 1967, 5(Pt. 10), 8-15.

tutorial; interaction; ELIZA; natural language; program; obstacles

0825 Hayward, P. R. ELIZA Scriptwriter's Manual. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

ELIZA; natural language; language; programming; author

0826 Igo, R., Hall, K. A., & Mitzel, H. E. Commonwealth CAI Consortium. Technical Report, Computer Assisted Instruction Laboratory, Pennsylvania State University, University Park, Nov. 15, 1969, (mimeo).

high school; algebra; math; tutorial; debugging; evaluation; curriculum development; attitude

0827 Igo, R., Hall, K. A., & Mitzel, H. E. Commonwealth CAI Consortium. Technical Report, Computer Assisted Instruction Laboratory, Pennsylvania State University, University Park, Feb. 28, 1970.

algebra; math; high school; debugging; personnel; teacher education; time; utilization; tutorial

0828 Igo, R., Hall, K. A., & Mitzel, H. E. Commonwealth CAI Consortium. Technical Report R-41, Computer Assisted Instruction Laboratory, Pennsylvania State University, University Park, Feb. 28, 1971.

algebra; math; high school; tutorial; testing; achievement; attitude

0829 Mitzel, H. E., Brown, B. R., & Igo, R. The Development and Evaluation of a Teleprocessed Computer-assisted Instruction Course in the Recognition of Malarial Parasites. Final Report R-17, Computer Assisted Instruction Laboratory, Pennsylvania State University, University Park, 1968.

medicine; malaria parasites; hardware; curriculum development; achievement

0830 Taylor, E. F. The ELIZA Program: Conversational Tutorial. In E. F. Taylor (Ed.), ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

tutorial; interaction; ELIZA; natural language; program; obstacles

0831 Weizenbaum, J. ELIZA--A Computer Program for the Study of Natural Language Communication between Man and Machine. In E. F. Taylor (Ed.), ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

ELIZA; interaction; natural language; programming; language

0832 Brehme, R. The ELIZA System at Wake Forest University. In E. F. Taylor (Ed.), ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

ELIZA; Wake Forest University; tutorial; physics; obstacles; attitude; achievement; evaluation

0833 Sherman, N. Can We Allow Students to Ask Questions? In E. F. Taylor (Ed.), ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

tutorial; physics; evaluation; ELIZA; program

0834 Knudsen, M. J. SLIDE--Dictionary System for Use with ELIZA Scripts. In E. F. Taylor (Ed.), ELIZA: A Skimmable Report on the ELIZA Conversational Tutoring System. Education Research Center, Massachusetts Institute of Technology, Cambridge, 1968.

slide projector; ELIZA

0835 Gilman, D. A., & Hernandez, I. The Retention of Concepts Learned as a Result of Several Feedback Modes in Computer-assisted Instruction. Paper presented at Dept. of Audiovisual Instruction/NEA meeting, Detroit, Mich., 1970.

confidence; feedback; error correction; retention; science; college

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AUTHOR

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0158 0273 0323 0389

AUTONOMY NEED

0497

AVAILABILITY

0468 0533

BACK-UP TIME

0555

BANKING

0267

BASIC

0093 0165 0372 0433
0501 0507 0545 0622
0746 0747 0749 0753
0797 0811

BEHAVIOR

0145 0164 0212 0609
0633 0637 0777 0797
0811

BEHAVIOR THEORY

0309

BEHAVIORAL OBJECTIVES

0035

BENDIX G-15

0321

BIBLIOGRAPHY

0032 0112 0166 0180
0199 0248 0250 0325
0385 0386 0507 0521
0529 0574 0621 0641
0648 0652 0753 0755
0762 0794

BIOLOGY

0400 0755 0794 0815

BLIND

0179 0610

BOOLEAN ALGEBRA

0495

BOUNCING BALL PROBLEM

0611

BRAILLE

0179

BRANCHING

0019 0035 0085 0098
0100 0103 0104 0108
0111 0125 0148 0150
0181 0182 0187 0192
0212 0215 0221 0232
0259 0288 0291 0309
0313 0315 0318 0320
0321 0324 0341 0344
0351 0354 0403 0404
0425 0440 0529 0567
0604 0619 0651 0653
0671 0715 0722

BUDGET

0745

BUSINESS EDUCATION

0017 0295 0306 0373
0466 0612 0690 0753

CAI SYSTEM

0395

CAI SYSTEMS

0139 0409

CAL

0397 0431 0436

CALCULATION

0071 0072 0076 0091
0110 0129 0176 0184
0230 0403 0404 0425
0616 0667 0737 0814

CALCULUS

0815

CAMP

0477

CAN-4

0215 0216

CARE PROGRAM

0275

CAREER GAME

0725

CASE STUDY

0202

CATALYST

0486

CATHODE RAY TUBE

0449 0685

CATO

0501 0507

CBI-70

0335

CENTRAL PROCESSING UNIT

0707

CENTRALIZATION

0280 0450 0460 0759

CHEMICAL ENGINEERING

0737 0799 0800

CHEMISTRY

0105 0211 0238 0305
0312 0496 0595 0622
0646 0689 0755 0783
0786 0791 0794

CHILD DEVELOPMENT

0144 0381

CINCINNATI

0541 0555

CIRCUIT DESIGN

0398

CIVIL ENGINEERING

0755 0791 0794

CLARINET

0035

CLASS

0030 0103 0106 0173
0181 0219 0313 0314
0315 0316 0351

CLASSROOM

0185

CLIMATOLOGY

0499 0557

COACH

0688

COBOL

0212

COGNITIVE ABILITY

0213 0214

COLLEGE

0056 0061 0070 0072
0076 0082 0088 0105
0110 0111 0113 0128
0129 0132 0139 0154
0155 0157 0168 0185
0194 0211 0214 0216
0230 0266 0285 0286
0293 0299 0312 0350
0351 0359 0377 0398
0399 0400 0413 0444
0458 0470 0474 0478
0488 0496 0499 0521
0537 0542 0556 0557
0558 0570 0571 0572
0622 0662 0664 0665
0681 0684 0691 0694
0703 0705 0713 0722
0723 0724 0725 0726
0728 0729 0730 0738
0748 0751 0755 0771
0782 0783 0791 0815
0835

COLORADO STATE UNIVERSITY

0159

COMMUNICATIONS

0794

COMPENSATORY EDUCATION

0394

COMPILER

0753

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0533

COMPREHENSION

0150 0459 0461

COMPUTATION

0081 0093 0117 0134
0162 0188 0215 0400
0426 0436 0518 0574
0631 0646 0756 0787
0801 0815

COMPUTER SCIENCE

0066

COMPUTER SYSTEMS

0066

COMPUTER-MANAGED INSTRUCTION

0099 0101 0102 0310
0311 0359 0439 0444
0447 0503 0518 0525
0546 0547 0627 0629
0650 0652 0738 0741
0805

COMPUTER-MANAGED LEARNING

0159

COMPUTER-MEDIATED INSTRUCTION

0111

CONCEPT BLOCK

0120 0684 0710 0711
0731 0795

CONCEPT LEARNING

0213

CONCEPT TEACHING

0092

CONCEPT TREE

0160

CONCEPTUAL MODELING

0820

CONFIDENCE

0212 0362 0495 0726
0728 0729 0730 0806
0835

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0222

CONSUMER EDUCATION

0081

CONSUMER GAME

0087

COPI

0438 0619

COPI 494 SYSTEM

0438

CORNELL UNIVERSITY

0764 0765

COST

0003 0016 0023 0024
0025 0026 0028 0034
0036 0041 0048 0049
0051 0077 0080 0096
0099 0103 0110 0116
0120 0121 0122 0125
0137 0146 0153 0171
0172 0189 0190 0205
0225 0227 0234 0237
0244 0247 0253 0257
0265 0267 0280 0287
0295 0316 0317 0326
0389 0356 0358 0359
0375 0394 0407 0409
0418 0426 0434 0441
0442 0443 0444 0447
0450 0451 0453 0454
0455 0457 0460 0467
0469 0478 0487 0492
0499 0503 0508 0514
0515 0517 0518 0521
0526 0538 0555 0556
0564 0566 0576 0582
0595 0606 0629 0631
0639 0640 0646 0649
0650 0652 0670 0671
0677 0689 0692 0699
0734 0738 0740 0742
0748 0751 0753 0756
0764 0774 0776 0784
0787 0801 0813 0815
0817

COUNSELING

0034 0466 0494 0513
0529 0663 0748 0780

COURSEWRITER

0035 0098 0130 0163
0291 0507 0623 0630

COURSEWRITER II

0019 0138 0370 0715

COURSEWRITER III

0322

CREATIVITY

0364 0369

CRITICISM

0090 0140 0169 0196
0586 0587 0626 0640

CRT

0078 0685

CUEING

0465 0544

CUES

0460

CURRENT ISSUES

0511

CURRICULUM

0018 0021 0022 0045
0069 0088 0091 0092
0100 0107 0118 0120
0123 0137 0148 0151
0152 0158 0160 0163
0172 0175 0184 0187
0190 0212 0226 0232
0246 0255 0281 0286
0298 0330 0331 0346
0390 0392 0397 0418
0498 0532 0554 0571
0572 0609 0622 0637
0643 0684 0689 0707
0714 0722 0731 0746
0750 0755 0759 0771
0783 0788 0791 0794

CURRICULUM DEVELOPMENT

0008 0014 0035 0074
0081 0091 0093 0100
0125 0142 0229 0257
0279 0288 0291 0376
0430 0495 0503 0512
0514 0515 0516 0521
0567 0568 0595 0693
0694 0722 0734 0759
0761 0774 0776 0777
0778 0779 0802 0815
0817 0826 0829

CURRICULUM--PROGRAMS

0041 0096 0105 0252
0300 0303 0304 0399

CURRICULUM--PROGRAM

0413

DARTMOUTH COLLEGE

0271 0433 0499

DATA

0777

DATA ANALYSIS

0233 0519 0722

DATA BANK

0285

DATA MANAGEMENT SYSTEM

0352

DATA PROCESSING

0066 0267 0625

DEAF

0013 0038 0224 0327
0328 0373 0567 0568
0610 0672 0708 0785
0786

DEBUGGING

0028 0129 0163 0187
0215 0413 0505 0630
0674 0777 0778 0779
0788 0826 0827

DECISION MODEL

0042 0043 0362

DECISION RULES

0059 0069 0208 0212
0219 0310 0637 0638
0742 0750 0796 0805

DEFINITION

0107 0258 0408 0409
0558 0654 0658 0744
0751 0802

DEHUMANIZATION

0680 0682

DEKALB COUNTY, GEORGIA

0281

DEMOCRACY GAME

0725

DEMOGRAPHY

0755 0794

DEMONSTRATION

0041 0312 0783

DENTAL EDUCATION

0754 0757

DENTISTRY

0334 0763 0764 0766
0767 0768 0769

DEPRIVATION

0706

DESIGN--INSTRUCTIONAL

0213 0214 0240

DIAGNOSTIC TOOL

0009 0079 0107 0149
0216 0311 0319 0381
0471 0509 0568 0687
0741 0785 0786 0818

DIAL-A-DRILL

0068 0227 0722

DIAL-ACCESS SYSTEM

0292 0569

DIALOG

0109

DIALOGUE SYSTEM

0019 0123 0125 0142
0156 0327 0366 0411
0412 0563 0574 0575
0576 0613 0676 0678
0679 0680 0682 0715
0757 0795 0801

DIFFICULTY LEVEL

0120 0139 0209 0683
0712 0722 0795

DIGITAL EQUIPMENT CORP.

0772

DISADVANTAGED

0002 0018 0021 0068
0174 0267 0337 0394
0493 0541 0610 0618
0722 0731 0733 0777

DISCOVERY

0132 0178 0193

DISPLAY

0668

DOVACK

0246

DRILL

0028 0035 0074 0103
0126 0182 0231 0284
0332 0388 0416 0487
0564 0569 0574 0576
0617 0662 0709

DRILL-AND-PRACTICE

0013 0016 0019 0020
0024 0026 0038 0055
0068 0075 0116 0118
0119 0120 0123 0125
0130 0146 0176 0181
0184 0194 0200 0216
0224 0232 0234 0289
0290 0297 0327 0330
0331 0337 0353 0359
0373 0374 0377 0394
0396 0417 0471 0487
0499 0507 0559 0566
0575 0600 0618 0646
0676 0677 0678 0679
0680 0682 0683 0684
0694 0695 0705 0706
0710 0711 0712 0715
0716 0722 0724 0731
0733 0750 0752 0755
0784 0785 0795 0801
0802 0806 0816

DRUG ABUSE EDUCATION
0780

ECONOMICS
0087 0182 0298 0506
0690 0755 0794

ECP-18
0753

EDUCATION
0007 0039 0046 0066
0091 0174 0207 0251
0305 0382 0563 0734
0739 0755 0760 0796

EDUCATIONAL ADMINISTRATION
0105

EDUCATIONAL PSYCHOLOGY
0285 0537

EDUCATIONAL TECHNOLOGY
0106 0121 0220 0274
0326 0734 0735 0738
0743 0744 0745 0757
0760 0801

EFFECTIVENESS
0003 0007 0020 0028
0053 0096 0107 0113
0146 0185 0205 0225
0243 0247 0360 0364
0394 0441 0442 0491
0492 0521 0526 0542
0569 0590 0606 0648

EFFECTIVENESS (CONTINUED)
0650 0656 0670 0751
0752

EFFICIENCY
0247 0468 0646

ELECTRICAL ENGINEERING
0343 0556 0755 0782
0783 0787 0788 0791
0794

ELECTRICITY
0815

ELECTRONIC BLACKBOARD
0177 0789 0790 0792
0793

ELECTRONIC BOOK
0792 0793

ELECTRONICS
0247 0398 0462 0491
0492 0520

ELEMENTARY GRADES
0005 0013 0018 0019
0021 0022 0026 0033
0038 0068 0079 0087
0092 0100 0113 0118
0125 0149 0164 0194
0208 0209 0210 0227
0228 0232 0233 0234
0289 0297 0301 0319
0330 0331 0332 0333
0340 0353 0373 0377

ELEMENTARY GRADES (CONTINUED)
0394 0396 0410 0416
0417 0429 0430 0434
0541 0566 0572 0600
0603 0618 0633 0644
0675 0676 0683 0684
0690 0705 0708 0709
0710 0711 0712 0714
0715 0716 0722 0731
0733 0748 0750 0752
0776 0795 0813 0816

ELIZA
0253 0596 0597 0689
0821 0822 0823 0824
0825 0830 0831 0832
0833 0834

ENGINEERING
0735

ENGINEERING--BEHAVIORAL
0099 0101

ENGINEERING DYNAMICS
0645

ENGINEERING ECONOMICS
0182

ENGINEERING EDUCATION
0622 0671 0737

ENGLISH
0075 0105 0227 0232
0233 0235 0267 0289

ENGLISH (CONTINUED)
0330 0331 0332 0377
0387 0526 0541 0783
0815

ENTELEK
0388

ERROR CORRECTION
0458 0542 0835

ERROR PROBABILITY
0710 0711

ERROR RATE
0360 0361 0591 0642
0713 0731 0733

EULER ANGLES
0645

EVALUATION
0005 0011 0016 0029
0035 0064 0067 0073
0139 0148 0220 0233
0259 0275 0318 0356
0373 0392 0395 0510
0523 0524 0544 0590
0608 0649 0671 0674
0693 0707 0742 0745
0759 0777 0778 0782
0784 0795 0807 0810
0826 0832 0833

EVOLUTION
0778

EXCEPTIONAL CHILD

0260 0275 0276

EXCEPTIONAL CHILDREN

0379

EXECUTIVE COMPUTER SYSTEMS, INC.

0390

EXPERIMENTS

0241 0488

EXPOSURES

0147

EXPOSURE TIME

0147

EYBOL

0656 0657 0658

FACULTY

0665

FAILURE

0745

FAMILIARITY

0063

FEASIBILITY

0100 0434 0460 0492
0663 0723

FEDERAL GOVERNMENT

0203 0239 0339 0607
0639

FEEDBACK

0062 0086 0139 0193
0259 0270 0323 0445
0449 0458 0510 0537
0542 0574 0591 0668
0726 0728 0729 0730
0835

FILM

0100 0103 0106

FINANCING

0172 0358

FLEXIBILITY

0109

FLORIDA STATE UNIVERSITY

0151 0204 0229 0352
0358 0522 0524 0532
0547 0748

FLOWCHART

0044

FOREIGN LANGUAGE

0014

FOREIGN LANGUAGES

0487

FORTRAN

0094 0184

FORTRAN--COURSE IN

0307

FREE ENTERPRISE GAME

0087

FRENCH

0755 0783 0794

FUNDING

0203 0267 0287 0292
0293 0460 0554 0569
0607 0639

FUTURE

0001 0016 0083 0103
0133 0152 0315 0338
0467 0549 0565 0680
0706 0751 0784 0802

GAMES

0002 0006 0019 0024
0036 0087 0104 0124
0183 0193 0202 0229
0268 0337 0341 0512

GAMES (CONTINUED)

0516 0525 0576 0580
0612 0690 0715 0725
0755 0783 0801

GENESYS

0534

GENETICS

0128 0293 0400 0778
0783 0791

GEOGRAPHY

0073 0286 0350 0399
0413 0478 0557 0558
0570 0571

GEOMETRY

0150 0691 0774 0775
0779 0787

GERMAN

0011 0014 0206 0487
0702

GIFTED LEARNER

0194

GLOSSARY

0289 0366 0373 0384
0622 0817

GRADUATE EDUCATION

0503 0815

GRADUATE SCHOOL

0080 0152 0523

GRAMMAR

0815

GRAPHICS

0071 0236 0237 0602
0605 0624 0659 0751

GRAPHIC TABLET DISPLAY CONSOLE

0602

GRAPHING

0432 0590 0701

GROW

0084

GUIDANCE

0034 0780

GUIDELINES

0531 0582

HANDICAPPED CHILDREN

0224

HARDWARE

0012 0013 0016 0019

HARDWARE (CONTINUED)

0024 0025 0026 0041
0048 0050 0051 0053
0078 0088 0089 0095
0096 0100 0105 0109
0118 0123 0138 0174
0182 0190 0204 0212
0224 0229 0235 0251
0255 0257 0258 0265
0269 0274 0278 0280
0294 0302 0330 0346
0355 0357 0358 0359
0368 0371 0373 0377
0380 0389 0395 0396
0407 0409 0421 0426
0430 0433 0434 0440
0451 0460 0469 0493
0507 0538 0543 0545
0554 0556 0557 0576
0586 0602 0606 0618
0619 0622 0637 0654
0680 0682 0685 0688
0699 0705 0707 0715
0722 0731 0734 0738
0740 0751 0753 0759
0771 0784 0791 0792
0793 0801 0802 0813
0815 0817 0829

HEALTH SCIENCES

0762

HEART DISEASE

0063

HEART RATE

0178

HEMATOLOGY

0757

HIGH SCHOOL

0013 0017 0053 0093
0111 0113 0117 0148
0184 0194 0227 0231
0279 0280 0295 0300
0303 0304 0306 0318
0329 0342 0363 0373
0378 0388 0418 0432
0466 0477 0493 0495
0499 0568 0572 0595
0610 0651 0653 0725
0746 0747 0777 0778
0783 0826 0827 0828

HIGHER EDUCATION

0015 0244 0266 0271
0564 0594 0694 0734
0735 0736 0813

HISTORY--CAI

0024 0224

HONEYWELL

0550 0552 0553

HUMANITIES

0634

HUMANIZATION

0095

HUMRRO

0243

IBM

0019 0098 0125 0299
0397 0440 0479 0732
0758

IBM/1130

0047 0673 0753

IBM 1410/1440

0293

IBM 1440 SYSTEM

0630

IBM/1500

0033 0035 0138 0163
0197 0198 0247 0370
0474 0623 0624

IBM 1500/1800

0352

IBM/1510

0197

IBM/2260

0732

IBM/360

0027 0184 0322 0355
0401

IBM/3735

0371

IBM/650 RAMAC

0702

IMAGE PROJECTOR

0138 0197

IMPACT

0212 0242 0243 0599
0635 0637

IMPLEMENTATION

0127 0133 0163 0190
0283 0310 0358 0491
0503 0521 0751 0778
0795 0802 0805

IMS

0741

INDIANA STATE UNIVERSITY

0724

INDICOM

0075 0228 0269 0373
0695

INDIVIDUALIZATION

0003 0020 0024 0028
0037 0055 0069 0073
0075 0077 0079 0082
0084 0086 0087 0091
0096 0099 0100 0101

INDIVIDUALIZATION (CONTINUED)

0102 0103 0106 0107
0110 0111 0112 0114
0115 0116 0118 0119
0120 0123 0125 0138
0139 0149 0150 0155
0156 0163 0171 0175
0181 0182 0183 0189
0191 0193 0195 0205
0209 0213 0214 0220
0224 0232 0246 0259
0272 0283 0308 0310
0311 0315 0316 0321
0323 0325 0327 0332
0341 0351 0357 0364
0373 0374 0375 0408
0415 0426 0456 0464
0472 0489 0503 0509
0510 0511 0513 0529
0540 0547 0569 0586
0587 0588 0589 0594
0604 0626 0637 0648
0664 0668 0672 0676
0677 0678 0679 0680
0681 0682 0693 0706
0722 0733 0748 0757
0795 0796 0801 0803
0804 0805 0807 0808
0809 0810

INDIVIDUALLY PRESCRIBED INSTRUCTION

0101 0310 0311 0489
0803 0804 0805 0808
0809

INDUSTRIAL EDUCATION

0328

INDUSTRIAL ENGINEERING

0536 0798

INDUSTRY

0029 0077 0137 0193
0626 0639 0661

INFORMATION EXCHANGE

0734

INFORMATION PROCESSING OPERATIONS

0732

INFORMATION RETRIEVAL

0757

INFORMATION RETRIEVAL SYSTEM

0006

INFORMATION SOURCES

0089 0409 0575 0584

INNOVATION

0046 0091 0207 0375
0464 0587 0588 0594
0643 0734 0745

INPUT

0100 0103 0365 0602
0753

INPUT/OUTPUT

0138 0197 0215 0265
0357 0501 0519 0543
0605 0649 0650 0654
0685

INQUIR

0094

INQUIRY

0006 0016 0060 0092
0175 0177 0276 0620
0782 0783 0784 0789
0790 0792 0793

INSERVICE EDUCATION

0225 0245 0276 0373
0379 0391 0504 0505
0548 0763 0766

INSTALLATION

0226 0280 0436 0595
0759

INSTALLATIONS

0071 0097 0152 0348
0355 0380 0422 0423
0424 0529

INSTITUTE IN EDUCATION MEDIA

0524

INSTRUCTION

0012 0066 0080 0114
0122 0135 0180 0196
0212 0218 0363 0441
0442 0467 0491 0523
0604 0650 0757 0777

INSTRUCTION MODEL

0598 0599

INSTRUCTION THEORY

0023 0351 0539

INSTRUCTION--GROUP

0106

INSTRUCTIONAL DESIGNER

0214

INSTRUCTIONAL MANAGEMENT SYSTEM

0319 0529

INSTRUCTIONAL OBJECTIVES

0604

INSTRUCTIONAL TECHNOLOGY

0114 0115 0287 0758

INSTRUCTOR-CONTROLLED INSTRUCTION

0033 0041 0073 0115

INSTRUCTOR-CONTROLLED LEARNING

0503

INTELLIGENCE

0233 0644

INTERACTION

0095 0103 0152 0297
0307 0341 0403 0404
0590 0614 0620 0650

INTERACTION (CONTINUED)

0702 0743 0757 0758
0759 0802 0813 0817
0823 0824 0830 0831

INTERFACE

0074 0407 0409 0602
0604 0652 0671 0734
0802

INTERNATIONAL

0226 0734

INTERNATIONAL RELATIONS

0690

INTERVIEW

0767

IPI

0310 0741 0803 0804
0805 0808 0809

JUNIOR COLLEGE

0436 0663

JUNIOR HIGH

0052 0084 0139 0163
0221 0232 0267 0295
0297 0308 0356 0360
0361 0367 0448 0472
0535 0572 0595 0693
0722 0747 0747 0748
0775 0779 0787

KANSAS CITY

0096 0163 0308 0367

KEYBOARD

0434

KEYWORDED INDEX

0385

KINETIC MOLECULAR THEORY

0603

KNOWLEDGE OF RESULTS

0220

KWIC INDEX

0386

LABORATORY

0058 0060 0132 0312
0343 0398 0432 0444
0556 0783 0787

LANGUAGE

0010 0012 0018 0021
0025 0028 0097 0127
0131 0133 0134 0135
0136 0138 0162 0163
0165 0188 0195 0215
0249 0250 0255 0257
0258 0267 0274 0279
0284 0291 0294 0296
0322 0329 0330 0346
0365 0366 0370 0372

LANGUAGE (CONTINUED)

0373 0376 0397 0403
0404 0405 0406 0407
0409 0420 0422 0423
0424 0425 0431 0438
0469 0486 0490 0501
0502 0507 0550 0551
0553 0558 0560 0562
0573 0574 0577 0578
0579 0580 0581 0596
0602 0606 0613 0614
0615 0616 0619 0622
0637 0649 0650 0652
0654 0658 0659 0662
0666 0673 0688 0689
0692 0707 0734 0746
0747 0749 0751 0753
0755 0759 0791 0813
0815 0817 0825 0831

LANGUAGE ARTS

0013 0206 0224 0232
0267 0373 0698 0752

LANGUAGE LABORATORY

0035

LATENCY

0065 0362 0710 0711
0713 0731 0733

LATIN

0231 0755 0783 0794

LAW

0267

LEARN

0231

LEARNER

0028 0106 0110 0138
0151 0198 0201 0251
0447 0499 0593 0622
0654 0655 0656 0657
0658 0673 0674 0723
0731 0733 0758 0777
0778 0815

LEARNER-CENTERED

0654 0656 0657 0658

LEARNER-CENTERED INSTRUCTION

0655

LEARNER-CONTROLLED INSTRUCTION

0033 0061 0073 0115
0124 0152 0216 0268
0337 0353 0447 0473
0474 0475 0503 0511
0563 0653 0758

LEARNER-CONTROLLED SEQUENCE

0213

LEARNING

0002 0018 0019 0020
0021 0024 0040 0082
0099 0100 0101 0104
0107 0139 0158 0204
0212 0214 0224 0294
0338 0393 0408 0452
0513 0540 0591 0627
0628 0638 0664 0669
0715 0770

LEARNING BY DISCOVERY

0093 0117 0124 0128
0369 0675

LEARNING--COMPUTER-CONTROLLED

0563

LEARNING DESK

0277

LEARNING MODEL

0023 0354 0512 0516
0608 0713 0796

LEARNING RESEARCH AND DEVELOPMENT CENTER

0803 0804

LEARNING THEORY

0023 0098 0617 0710
0711

LECTURE

0007 0168

LEVELS OF CAI

0019 0104 0297 0669
0715 0757 0758 0795
0818

LIBERAL ARTS

0433

LIBRARY SCIENCE
0755 0783 0794

LIFE SCIENCES
0791

LIGHT PEN
0123 0197 0685

LIMITATIONS
0089 0133 0253 0346
0347 0578 0604 0735
0736 0738 0760 0822

LINEAR EQUATIONS
0200

LINGUISTIC MODEL
0042 0043 0044

LINGUISTICS
0815

LISA
0330

LITERATURE
0648

LITERATURE REVIEW
0033 0089 0090 0108
0113 0166 0224 0229

LITERATURE REVIEW (CONTINUED)
0407 0408 0409 0507
0513 0525 0540 0574
0575 0647 0652

LOGARITHMS
0231

LOGIC
0148 0194 0318 0651
0653 0705 0722 0750
0795

LOUISIANA
0552

LYRIC
0502 0654 0658 0659

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0019 0715

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0829

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0184 0326

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0187 0392

MANAGEMENT--INSTRUCTIONAL

0069 0317

MANAGEMENT SYSTEM

0311 0802 0803 0804

MANAGEMENT SYSTEM--INFORMATION

0079 0149 0518

MANAGEMENT SYSTEM--INSTRUCTIONAL

0049 0050 0059 0319
0357 0377 0529 0649
0652 0741

MAPS

0570

MARION COUNTY, OREGON

0753

MASS MEDIA

0166

MATH

0009 0013 0019 0024
0026 0038 0052 0053

MATH (CONTINUED)

0054 0055 0062 0075
0077 0085 0092 0094
0105 0111 0130 0139
0159 0163 0164 0165
0184 0194 0210 0216
0224 0227 0228 0231
0234 0256 0268 0295
0297 0308 0319 0328
0342 0360 0361 0363
0367 0373 0377 0378
0388 0396 0397 0410
0430 0432 0448 0456
0466 0471 0477 0487
0504 0505 0515 0526
0538 0539 0548 0566
0568 0580 0590 0595
0600 0633 0641 0646
0659 0662 0664 0684
0701 0706 0708 0715
0716 0722 0724 0750
0752 0753 0755 0761
0775 0776 0783 0785
0786 0794 0816 0826
0827 0828

MATHS

0662

MECHANICS

0070 0252 0470 0755
0814

MEDIA

0109 0115 0192 0451
0697

MEDICINE

0004 0147 0236 0245
0267 0411 0412 0414
0419 0455 0534 0561
0615 0686 0687 0757
0759 0762 0763 0764

MEDICINE (CONTINUED)

0765 0767 0829

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0520

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0202

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0268

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0103

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0691

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0260 0276 0379 0505

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0753

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0796

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0242 0635

MONITOR

0741

MOTIVATION

0055 0073 0185 0209
0300 0351 0723 0777

MULTI-MEDIA

0095 0099 0101 0103
0154 0155 0157 0313
0337 0351 0359 0391
0436 0444 0521 0523
0529 0556 0565 0628
0724 0756

MUSIC

0035 0092 0208 0434
0748

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0042 0043 0044 0109
0123 0188 0195 0235
0236 0412 0507 0596
0597 0613 0819 0820
0821 0823 0824 0825
0830 0831

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0366

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0005 0125 0126 0227
0292 0700 0731 0733

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0774 0783 0787 0791
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0084 0141 0151 0232
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0273 0808 0809

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0807 0810

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0220

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0024 0026 0083 0099
0102 0116 0193 0235
0240 0315 0338 0346
0347 0368 0383 0478
0500 0512 0516 0549
0594 0610 0629 0649
0650 0676 0677 0679
0692 0706 0733 0738
0744 0751 0764 0802
0815 0824 0830 0832

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0763 0766

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0237

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0010

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0469

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0018 0019 0020 0021
0023 0024 0040 0100
0627 0638 0669 0796
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0069 0453

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0103

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0150

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0222

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0016 0025 0077 0089
0104 0105 0183 0229
0287 0288 0297 0316
0345 0359 0373 0408
0409 0427 0428 0454
0455 0456 0457 0499
0529 0549 0565 0575
0576 0584 0608 0626
0650 0652 0655 0689
0700 0724 0727 0748
0751 0754 0764 0784
0789 0790 0801 0802

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0033 0062 0064 0187
0209 0362 0435 0529
0591 0664

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0154 0155 0157 0447
0509 0510 0521 0525
0529 0668

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0107 0137 0151 0163
0196 0204 0229 0255
0269 0308 0358 0441
0442 0512 0514 0515
0516 0518 0521 0524
0529 0531 0582 0595
0606 0618 0643 0731
0733 0777 0812 0815
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0279 0280 0378

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0070 0071 0072 0076
0093 0117 0132 0139
0154 0155 0157 0230
0252 0253 0254 0255
0300 0303 0329 0359
0432 0444 0470 0488
0499 0512 0516 0521
0595 0611 0622 0631
0646 0724 0748 0755
0791 0794 0812 0814
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0083 0088 0103 0153
0175 0177 0178 0181
0219 0297 0302 0314
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0774 0775 0777 0782
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0094 0104 0130 0160
0162 0167 0185 0188
0226 0237 0238 0306
0329 0343 0359 0363
0460 0496 0551 0556
0574 0580 0609 0683
0705 0712 0753 0775
0785 0799 0800

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0138 0198 0356 0568
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0117 0146 0770 0777
0781 0783 0818 0821
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0061 0216

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0223 0225 0240 0242
0270 0289 0309 0314
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0635 0647 0655 0656
0657 0658 0696 0797
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0226 0568 0595 0654
0655 0656 0657 0658
0665 0694

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0100

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0040 0064 0094 0098
0124 0141 0162 0168
0177 0187 0194 0216
0221 0231 0236 0249
0284 0324 0327 0333
0403 0405 0415 0463
0477 0493 0535 0567
0571 0579 0596 0613
0615 0622 0630 0654
0665 0666 0669 0689
0714 0723 0742 0746
0747 0749 0753 0759
0817 0825 0831

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0088 0771 0783

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0183 0224 0229 0243
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0373 0499 0549 0554
0573 0595 0599 0658
0705 0754 0755 0764
0765 0766 0767 0801

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0024 0026 0063 0065
0075 0077 0079 0081
0084 0100 0116 0125
0149 0150 0164 0169
0170 0191 0194 0210
0232 0246 0268 0289
0296 0319 0331 0332
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0030 0089 0107 0122
0152 0178 0305 0315
0338 0463 0521 0531
0650 0668 0789 0790
0794

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0089 0137 0140 0257
0313 0335 0389 0407
0513 0639 0649 0652
0724 0734 0813

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0181 0638 0777

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0055 0063 0085 0086
0098 0168 0173 0187
0212 0220 0222 0223
0309 0320 0321 0338
0362 0429 0446 0463
0465 0487 0519 0544
0573 0601 0603 0604
0648 0649 0671 0679
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0221 0222 0270 0353
0360 0361 0416 0446
0448 0458 0510 0525
0603 0618 0709 0726
0728 0730 0835

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0779

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0644

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0007 0526

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0082 0194 0267 0681
0684 0705 0722 0755
0794

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0300 0303 0304

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0725

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0509 0780

SCIENCE

0061 0065 0085 0092
0139 0163 0177 0204
0213 0214 0221 0308
0356 0367 0373 0397
0429 0430 0458 0466
0472 0499 0508 0517
0542 0585 0595 0646
0693 0726 0728 0729
0730 0748 0766 0835

SDC

0173 0195 0380 0632

SELF-INSTRUCTION

0094 0103 0150 0414
0544 0660

SEQUENCE

0001 0061 0085 0213
0220 0221 0222 0309
0321 0341 0447 0498
0574 0679 0713

SEX

0062 0360 0361 0448
0731 0733 0748 0777

SIERRA LEONE DEVELOPMENT PROJECT

0087

SIMULATION

0002 0004 0006 0024
0028 0036 0058 0060
0071 0074 0077 0091
0103 0104 0105 0106
0107 0111 0124 0128
0130 0132 0161 0175
0181 0182 0193 0217
0229 0241 0250 0267
0329 0337 0339 0350
0374 0381 0388 0398
0400 0444 0488 0507
0512 0516 0518 0529
0534 0536 0574 0576
0580 0583 0585 0611
0631 0646 0659 0667
0689 0690 0757 0767
0768 0769 0783 0787
0798 0800 0801 0802

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0834

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0364

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0219 0411 0668 0757

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0156 0298 0412 0687

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0016 0024 0041 0048
0116 0125 0137 0161
0183 0191 0193 0195
0212 0224 0258 0274
0294 0330 0346 0347
0355 0357 0368 0383
0396 0433 0434 0450
0454 0457 0469 0493
0506 0507 0538 0576
0582 0584 0626 0637
0655 0661 0693 0694
0699 0722 0734 0751
0759 0777 0784 0791
0802 0813 0815 0818

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0369

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0499 0755 0794

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0571

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0202

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0075 0125 0172 0288
0373 0416 0417 0705
0709 0722 0806

SRI

0675

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0680 0682

STANFORD UNIVERSITY

0013 0018 0019 0020
0021 0022 0024 0026
0077 0082 0100 0194
0210 0289 0297 0336
0396 0587 0676 0681
0705 0706 0708 0714
0715 0722 0748 0795
0802

STATISTICS

0080 0167 0185 0473
0474 0475 0667 0702
0758

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0702

STEP SIZE

0086 0321 0320 0644

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0091

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0125 0220 0222 0679
0706

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0764

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0010 0450 0707 0777

STRAND

0013 0396 0600 0722
0750

STRATEGY--INSTRUCTIONAL

0014 0016 0022 0035
0060 0064 0083 0088
0092 0096 0110 0115
0141 0150 0159 0177
0181 0182 0187 0188
0211 0212 0213 0214
0242 0246 0247 0276
0301 0302 0308 0349
0377 0390 0393 0396
0447 0449 0487 0493
0511 0512 0513 0516
0520 0539 0543 0557
0574 0595 0608 0635
0647 0662 0668 0684
0734 0757 0761 0771
0783 0784 0786 0789
0790 0792 0793 0796
0802 0815

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0229

STRATEGY--LEARNING

0513 0628

STRESS

0139

STRINGCOMP

0501

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0028 0066 0083 0098
0100 0103 0109 0111
0118 0119 0123 0138
0177 0255 0289 0308
0317 0319 0352 0356
0438 0466 0519 0543
0547 0568 0573 0630
0671 0677 0679 0693
0756 0777

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0142

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0087 0690

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0713

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0395 0450 0590 0623
0655 0813

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0158 0218 0351 0796

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0010 0012 0272 0283
0669 0738 0740 0756
0774 0787 0796

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0313 0315 0380

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0636

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0658

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0656 0657

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0097 0573 0608

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0189 0374 0514 0707

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0106 0122 0171 0201
0218 0226 0243 0503
0512 0516 0521 0529
0586 0594 0628 0638
0639 0743

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0008

TALKING TYPEWRITER

0116 0172 0191 0340
0698

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0757

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0061 0213 0514 0515
0567

TASK DIFFICULTY

0592

TEACHER

0001 0045 0077 0079
0084 0092 0095 0096
0101 0102 0106 0110
0119 0121 0122 0123
0125 0143 0145 0149
0163 0190 0191 0193
0228 0240 0251 0269
0273 0274 0308 0319
0331 0332 0351 0373
0379 0439 0454 0457
0467 0468 0489 0527
0528 0540 0552 0593
0618 0622 0654 0655
0656 0657 0658 0678
0688 0695 0696 0697
0699 0731 0733 0748
0750 0753 0758 0773
0778 0795 0797 0801
0803 0804 0811 0815

TEACHER-CONTROLLED INSTRUCTION

0353

TEACHER EDUCATION

0006 0091 0103 0105
0225 0260 0276 0373
0383 0391 0504 0505
0527 0528 0547 0548
0707 0775 0827

TEACHING MACHINE

0001 0098 0108 0113
0114 0150 0166 0168
0173 0181 0192 0219
0220 0320 0321 0411
0429 0644 0660 0702

TEACHING MODEL

0608 0669

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0658

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0727

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0265

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0074 0683 0712 0722
0746 0750

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0093 0117

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0776

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0818

TERMINAL

0012 0028 0053 0057
0071 0078 0088 0097
0109 0119 0123 0138
0197 0198 0282 0371
0395 0426 0543 0602
0605 0606 0674 0679
0689 0702 0714 0731
0732 0733 0737 0740
0750 0751 0753 0756
0771 0774 0784 0787
0789 0790 0792 0793
0802 0818

TESTING

0069 0074 0098 0107
0114 0216 0337 0410
0436 0471 0507 0508
0509 0517 0732 0733
0761 0780 0803 0804
0807 0808 0809 0810
0812 0828

THEMIS

0229 0522 0525

THEOREM PROOFS

0775

THEORY

0316 0409 0500 0507
0608 0668

TIME

0065 0083 0087 0148
0150 0318 0449 0453
0459 0461 0462 0491
0492 0572 0674 0827

TIME OUTS

0731 0733

TIME-SHARING

0015 0093 0097 0117
0123 0125 0128 0165

TIME-SHARING (CONTINUED)

0237 0265 0388 0396
0402 0406 0418 0420
0433 0476 0499 0506
0545 0622 0646 0649
0656 0657 0692 0737
0751 0753 0772 0798

TOTAL TIME HYPOTHESIS

0147

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0170

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0006 0058 0103 0106
0151 0161 0163 0177
0226 0228 0229 0267
0341 0357 0358 0373
0462 0518 0520 0523
0524 0525 0595 0656
0657 0665 0731 0732
0733 0753 0769 0247

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0058

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0129

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0231

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0028 0195 0755 0791

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0013 0016 0019 0020
0024 0026 0041 0042
0043 0044 0055 0071
0074 0084 0116 0122
0123 0125 0130 0135
0142 0163 0175 0177
0182 0194 0204 0215
0236 0253 0276 0315
0323 0327 0337 0359
0374 0396 0400 0453
0471 0496 0507 0537
0548 0551 0574 0575
0576 0646 0662 0668
0676 0678 0679 0680
0682 0684 0702 0703
0705 0715 0751 0763
0765 0782 0783 0784
0785 0789 0790 0792
0793 0795 0796 0801
0802 0806 0818 0821
0822 0824 0826 0827
0828 0830 0832 0833

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0821

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BLOCK, KAREN K.

0802 0806

BLOMME, R. W.

0791

BLUM, R.

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BOLT, R. H.

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BOLVIN, J. O.

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BOOCOCK, S. S.

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BORK, A. M.

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BORRESON, H. A.

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BRADFORD, C. H.

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BRATTEN, J. E.

0079 0149 0218

BRAUNFELD, P.

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BRAUNFELD, P. G.

0083 0088 0302 0771

BREHME, R.

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BRIGGS, L. J.

0085 0086

BRIGHAM, C. R.

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BROCK, R.

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BROOKS, F. P., JR.

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BROWN, B. R.

0229 0829

BROWN, D.

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BROWN, J. R.

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BRUDNER, H. J.

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BRUNO, L.

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BRYAN, G. L.

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BUESCHEL, R. T.

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BUNDERSON, C. V.

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BURGER, J. F.

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BURKHART, L. E.

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BURNS, J. L.

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BUSHNELL, D. D.

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BUTLER, C. F.

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CAMPEAU, PEGGIE L.

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CARPENTER, JANETH T.
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CARTER, LAUNOR F.
0273 0274

CARTWRIGHT, CAROL A.
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CARTWRIGHT, G. P.
0275 0276

CASSEL, R. N.
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CHAMBERS, C. C.
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CHAPMAN, MADALYNNE A.
0073

CHAPMAN, R. L.
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0084 0279 0280

CHERRY, J.
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CHETIN, H. C.
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CHISTOPHER, G. R.
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CHURCHILL, STACY
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COGSWELL, J. F.
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COX, R. C.

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KROMHOUT, O. M.
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KROPF, J. F.
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KUETHE, J. L.
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KURTZ, T. E.
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LAUBSCH, J. H.
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LEKAN, HELEN A.
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LEONARD, G. B.
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LIPPERT, H.
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LIPPERT, H. T.
0066 0151 0176 0521
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LUBIN, J. F.
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LUCAS, NANCY C.
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LUEHRMANN, A.
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LUMSDAINE, A. A.
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LYMAN, ELISABETH R.
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0789 0790 0794

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0154 0157

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0155 0529

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MEREDITH, J. C.
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VONHOF, P.
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VONHOF, P. W.
0623

WADSWORTH, R. B.
0158

WALDEN, W. E.
0184

WARD, J. R.
0671

WASTLER, B. JEAN
0595

WAY, FLORINE L.
0246

WEBBER, C. E.
0770

WEBER, J. C.
0236

WEINER, M.
0005 0731 0733

WEINSTEIN, I. J.
0796

WEISMAN, R. G.
0445 0446

WEISSMAN, K.
0747

WEIZENBAUM, J.
0596 0597 0823 0831

WENESER, BETTY
0598

WILLIAMS, E. M.
0743

WILLIAMS, JOANNA P.
0601

WILLIAMS, T. G.
0602

WILLIAMS, W. H.
0201

WILSON, H. A.

0024 0025 0026

WISLER, D.

0092

WITTROCK, M. C.

0603

WODTKE, K. H.

0604

WOLF, R. M.

0004

WOOD, R. C.

0556

WRIGHT, BETTY J.

0531 0532

WYE, R. E.

0606

YANCEY, J. M.

0723

YEATES, M. H.

0571

YETT, F. A.

0094

YOUNGMAN, C. E.

0570

ZELLWEGER, A.

0254

ZINN, K. L.

0162 0188 0501 0572
0573 0574 0575 0576
0577 0578 0579 0580
0581 0582 0583 0584

ZINN, K.

0817

ZOSEL, MARY

0560